CLAIMS

1. Method for prevention of capsular opacification, comprising:

a) creating an opening in a lens capsule of an eye;

b) removing the natural lens from the lens capsule;

c) inserting a capsule filling implant into the lens capsule; and

d) injecting a composition into the space between the inserted implant and the lens capsule;

in which method the composition injected in step d) comprises at least one agent capable of inhibiting at least one of the following:

- proliferation of lens epithelial cells;
- migration of lens epithelial cells; and
- production of extra-cellular matrix by lens epithelial cells.

2. Method according to claim 1, in which step d) is performed in such a way that the composition injected is applied to the germinative zones of epithelial cells, and in such a way that the central parts of the anterior and posterior surfaces of the lens capsule are kept essentially free from the composition.

3. Method according to claim 1, in which step d) is performed in such a way that the composition injected is applied to the whole of the inside of the lens capsule.

4. Method according to any one of the preceding claims, in which the injection in step d) is performed using an instrument having a hydrophobic outer surface.

5. Method according to claim 4, in which said instrument is a steel cannula with a hydrophobic coating.

6. Method according to claim 4, in which said instrument is made from a hydrophobic material.

7. Method according to any one of the preceding claims, in which the size of the opening created in step a) is below 3 mm.

8. Method according to claim 7, in which the size of the opening created in step a) is from 0.8 to 1.5 mm.

9. Method according to any one of the preceding claims, which further comprises sealing the opening in the lens capsule.

10. Method according to claim 9, in which said sealing is performed through insertion of a sealing device in the opening before step d), which sealing device permits entrance into, and withdrawal from, the lens capsule of instruments for manipulation and/or injection.

11. Method according to any one of the preceding claims, in which the capsule filling implant is an artificial lens.

12. Method according to claim 11, in which the artificial lens is a capsule filling lens, such as selected from hydrogel lenses, preformed lenses that are rolled into a shape like a cigar, and lenses that are made from lens material injected into the lens capsule and then cured by heat or light.

13. Method according to any one of the preceding claims, in which the capsule filling implant comprises an injectable material, which is capable of undergoing cross-linking to form a lens implant following injection thereof into the lens capsule.

14. Method according to any one of the preceding claims, in which the at least one agent is present in a physiologically acceptable solution.

15. Method according to any one of the preceding claims, in which the at least one agent is present in a physiologically isotonic solution.

16. Method according to any one of the preceding claims, in which the at least one agent is present in a hypotonic solution.

17. Method according to any one of the preceding claims, in which the at least one agent is present in a hypertonic solution.

18. Method according to any one of the preceding claims, in which the composition comprises a cytotoxic agent.

19. Method according to claim 18, in which the cytotoxic agent is chosen from the group consisting of saporin, ricin, methotrexate, 5-fluorouracil, daunomycin, doxorubicin, mitoxanthrone, vinca alkaloids, vinblastine, colchicine, cytochasins, monensin, mitomycin and ouabain.

20. Method according to any one of the preceding claims, in which the composition comprises a nucleic acid molecule comprising a gene encoding a protein capable of inducing the death of lens epithelial cells, the gene being subject to transcriptional control specific to said cells.

21. Method according to claim 20, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is chosen from the group consisting of genes encoding a protein which induces cell death by ne-

crosis and genes encoding a protein which is toxic to lens epithelial cells.

22. Method according to claim 21, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is a gene encoding a protein which induces apoptosis, or a gene involved in the process of apoptosis.

23. Method according to anyone of claims 20-22, in which said gene encoding a protein capable of inducing the death of lens epithelial cells is chosen from the genes encoding p53, BAX, FLICE, TRAIL and TRAIL-R.

24. Method according to any one of claims 20-23, in which the gene encoding a protein capable of inducing the death of lens epithelial cells is provided within a vector.

25. Method according to claim 24, in which said vector is of the adenovirus type.

26. Method according to any one of the preceding claims, in which the composition comprises at least one basement membrane binding agent, which is conjugated to at least one cytotoxic agent.

27. Method according to claim 26, in which the at least one cytotoxic agent is chosen from the group consisting of ribosomal inhibitory proteins, antimitotic drugs and ionophores.

28. Method according to claim 27, in which the at least one cytotoxic agent is a ribosomal inhibitory protein.

29. Method according to any one of claims 26-28, in which the at least one basement membrane binding agent is chosen from the group consisting of poly-L-lysine, poly-D-lysine, fibronectin, laminin, type I, II, III and IV collagen, thrombospondin, vitronectin, polyarginine and platelet factor IV.

30. Method according to claim 29, in which the at least one basement membrane binding agent is chosen from poly-L-lysine and poly-D-lysine.

31. Method according to any one of the preceding claims, in which the composition comprises a surfactant.

32. Method according to any one of the preceding claims, in which the composition comprises a hypotonic solution.

33. Method according to any one of the preceding claims, in which the composition comprises a hypertonic solution.

34. Method according to any one of the preceding claims, in which the composition comprises a divalent cation chelator.

35. Method according to any one of the preceding claims, in which the composition comprises an arginine-glycine-asparagine (RGID) peptide analog.

36. Method according to any one of the preceding claims, in which the composition comprises an antibody directed against cell attachment receptors.